

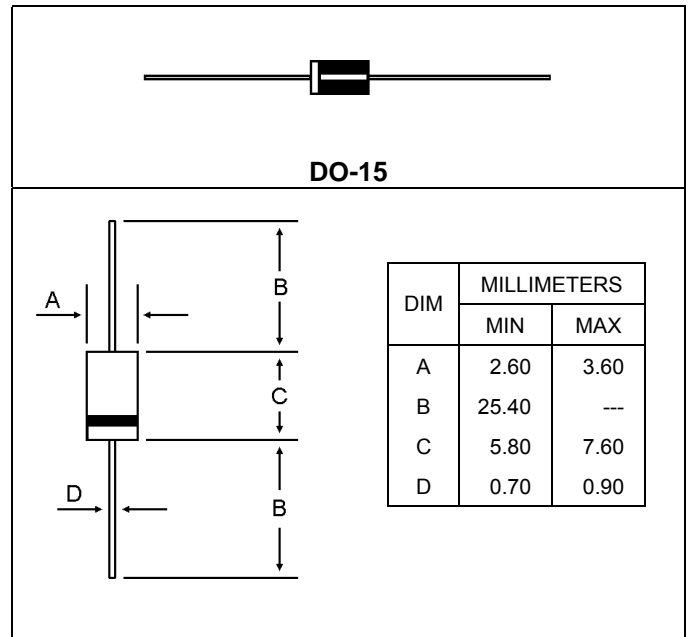
FAST RECOVERY RECTIFIER
Voltage rang 50 TO 1000 Volts
Current 1.5 Ampere

FEATURES

- * Fast switching for high efficiency
- * Glass Passivated Chip junction
- * Low leakage
- * High temperature soldering guaranteed
 260 /10 seconds, 0.375"(9.5 mm) lead length
 at 5 lbs(2.3kg) tension

MECHANICAL DATA

- * Case : Transfer Molded Plastic
- * Epoxy: UL94V-O rate flame retardant
- * Terminals : Plated axial lead, Solderable Per MIL-STD-202
 Method 208
- * Polarity : Color band denotes cathode end
- * Mounting position: Any
- * Weight : 0.014 ounce. 0.39 gram (approx)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- * Rating at 25 ambient temperature unless otherwise specified
- * Single phase, half wave. 60Hz, resistive or inductive load.
- * For capacitive load derate current by 20 %

Characteristic	Symbol	FR151	FR152	FR153	FR154	FR155	FR156	FR157	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Forward Current Per Leg $T_C=55$	$I_{F(AV)}$	1.5							A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage ($I_F=1.5$ Amp $T_C=25$)	V_F	1.3							V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25$) (Rated DC Voltage, $T_C=125$)	I_R	5.0 200							uA
Reverse Recovery Time (Note 3)	T_{rr}	150			250		500		ns
Typical Junction Capacitance (Note 1)	C_j	20							pF
Typical Thermal Resistance (Note 2)	$R_{\theta jA}$	50							/W
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +175							

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
2. Thermal Resistance from Junction to ambient at .375"(9.5mm)lead length, P.C. board mounted
3. Test conditions: $I_F=0.5$ A, $I_R=1.0$, $I_{RR}=0.25$ A

FR151 Thru FR157

FIG-1 TYPICAL FORWARD CHARACTERISTICS

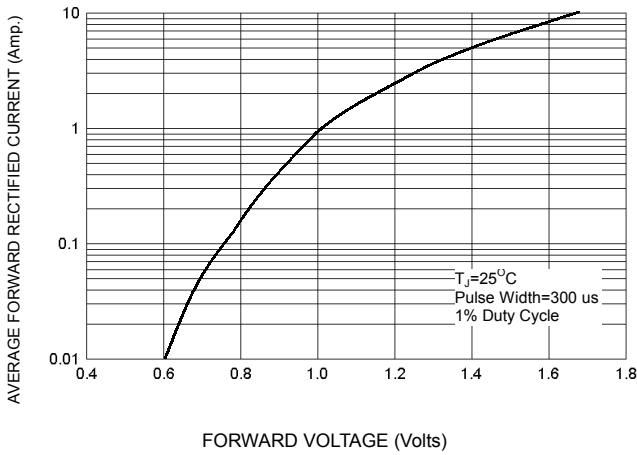


FIG-3 FORWARD CURRENT DERATING CURVE

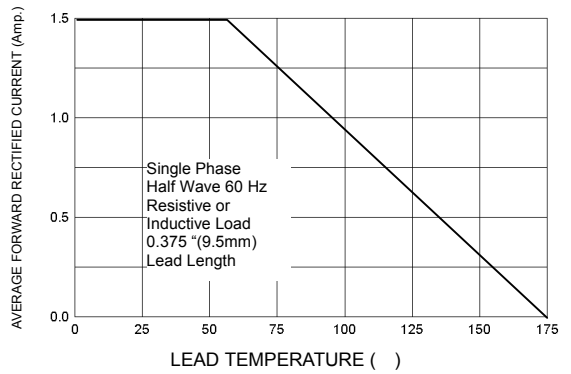


FIG-2 TYPICAL REVERSE CHARACTERISTICS

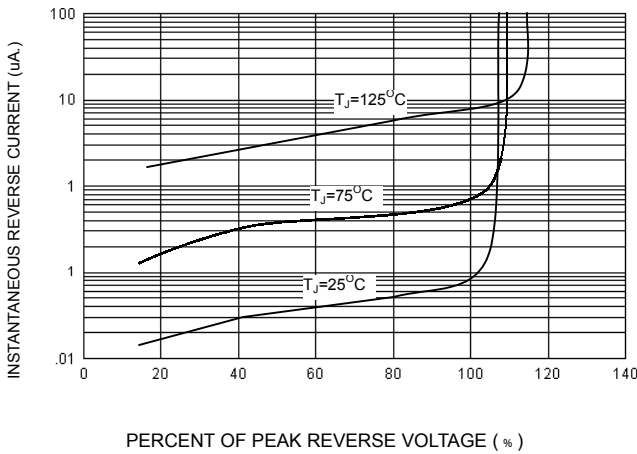


FIG-4 TYPICAL JUNCTION CAPACITANCE

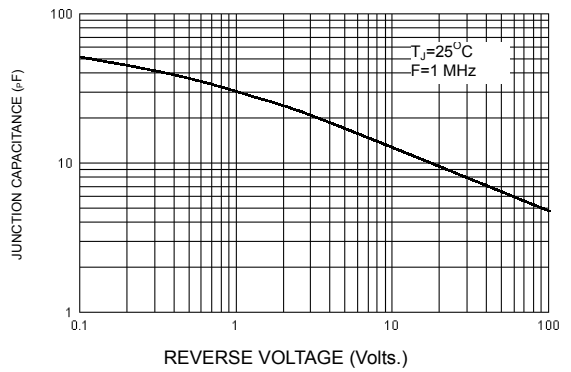
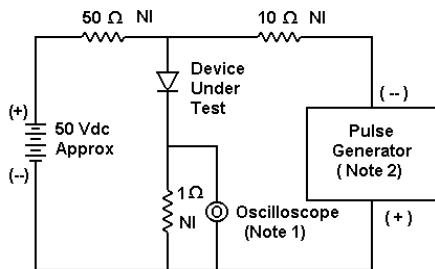
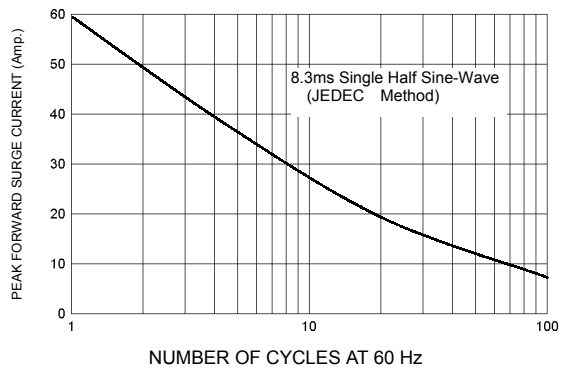
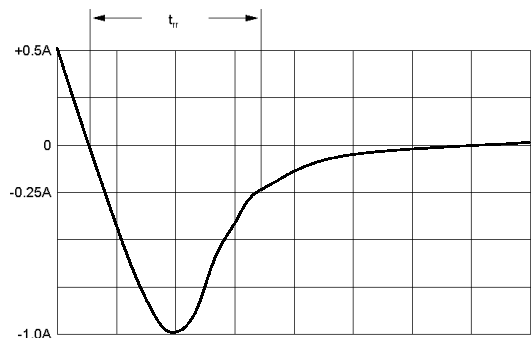


FIG-5 PEAK FORWARD SURGE CURRENT



- Notes:
 1. Rise Time = 7 ns max. Input Impedance = 1 M Ω , 22 pF
 2. Rise Time = 10 ns max. Input Impedance = 50 Ω



Set time base for 50/100 ns/cm

FIG-6 Reverse Recovery Time Characteristic and Test Circuit Diagram

Notice

MOSPEC reserves the rights to make changes of the content herein the document anytime without notification. MOSPEC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies. Please refer to MOSPEC website for the last document.

MOSPEC disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially incurred.

Application shown on the herein document are examples of standard use and operation. Customers are responsible for comprehending suitable use in particular applications. MOSPEC makes no representation or warranty that such application will be suitable for the specified use without further testing or modification.

The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by MOSPEC for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of MOSPEC or others.

These MOSPEC products are intended for usage in general electronic equipment. Please make sure to consult with MOSPEC before you use these MOSPEC products in equipment which require specialized quality and/or reliability, and in equipment which could have major impact to the welfare of human life (atomic energy control, aeronautics , traffic control, combustion control, safety devices etc.)